

What is claimed is:

- 1        1. A method for use in a database system, comprising:
  - 2              defining a user-defined data type (UDT) with code according to an interpreted programming language; and
  - 4              storing a table containing at least one attribute according to the user-defined data type.
- 1        2. The method of claim 1, further comprising defining a user-defined method (UDM) associated with the UDT with code according to the interpreted programming language.
- 1        3. The method of claim 2, further comprising executing the UDM with an interpreter.
- 1        4. The method of claim 3, wherein executing the UDM with the interpreter comprises executing the UDM with a virtual machine.
- 1        5. The method of claim 4, wherein executing the UDM with the virtual machine comprises executing the UDM with a JAVA virtual machine.
- 1        6. The method of claim 1, wherein defining the UDT with code according to the interpreted programming language comprises defining the UDT with code according to one of JAVA and C#.
- 1        7. The method of claim 1, further comprising receiving a Structured Query Language (SQL) statement to create the UDT, the SQL statement specifying a file containing the code according to the interpreted programming language.
- 1        8. The method of claim 7, further comprising declaring a user-defined method (UDM) in the statement to create the UDT.

1           9.     The method of claim 8, further comprising receiving a second SQL  
2 statement to create the UDM, wherein the second SQL statement specifies a file  
3 containing code to define the UDM, the code according to the interpreted programming  
4 language.

1           10.    The method of claim 1, further comprising:  
2                 providing an interpreted programming language virtual machine to  
3 provide a container for the UDT; and  
4                 executing a routine to establish a connection from a database in the  
5 database system to the virtual machine.

1           11.    The method of claim 10, further comprising providing an interface  
2 between the database and the virtual machine.

1           12.    The method of claim 11, wherein providing the interface comprises  
2 providing a JAVA native interface.

1           13.    The method of claim 10, further comprising receiving a Structured Query  
2 Language (SQL) statement to create the UDT.

1           14.    An article including at least one storage medium containing instructions  
2 that when executed cause a database system to:  
3                 define a user-defined data type (UDT) with code according to an  
4 interpreted programming language; and  
5                 store a table containing at least one attribute according to the user-defined  
6 data type.

1           15.    The article of claim 14, wherein the instructions when executed cause the  
2 database system to define a user-defined method (UDM) associated with the UDT with  
3 code according to the interpreted programming language.

1        16. The article of claim 15, wherein the instructions when executed cause the  
2 database system to execute the UDM on an interpreted programming language virtual  
3 machine.

1        17. The article of claim 14, wherein defining the UDT with code according to  
2 the interpreted programming language comprises defining the UDT with code according  
3 to one of JAVA and C#.

1        18. The article of claim 14, wherein the instructions when executed cause the  
2 database system to receive a Structured Query Language (SQL) statement to create the  
3 UDT, the SQL statement specifying a file containing the code according to the  
4 interpreted programming language.

1        19. The article of claim 18, wherein the instructions when executed cause the  
2 database system to declare a user-defined method (UDM) in the statement to create the  
3 UDT.

1        20. The article of claim 19, wherein the instructions when executed cause the  
2 database system to receive a second SQL statement to create the UDM, wherein the  
3 second statement specifies a file containing code to define the UDM, the code according  
4 to the interpreted programming language.

1        21. A database system comprising:  
2              a storage to store code according to an interpreted programming language;  
3              and  
4              a controller to receive a database query to create a user defined data type  
5 (UDT), the database query containing a clause identifying a storage location of the code  
6 according to the interpreted programming language.

1        22. The database system of claim 21, wherein the code comprises JAVA  
2 bytecode.

1           23. The database system of claim 21, wherein the code comprises code  
2 corresponding to the C# language.

1           24. The database system of claim 21, further comprising an interpreter to  
2 execute the code according to the interpreted programming language.

1           25. The database system of claim 24, the storage to store second code  
2 according to the interpreted programming language, and the controller to further receive a  
3 second database query to create a user-defined method (UDM) associated with the UDT,  
4 the second database query identifying a location of the second code.

1           26. The database system of claim 25, the interpreter to execute the second  
2 code.

1           27. The database system of claim 26, wherein the interpreter comprises a  
2 virtual machine.

1           28. The database system of claim 21, the storage to further store a table  
2 containing an attribute according to the UDT.